Listing of Claims:

Claims 1-10 (canceled)

11. (New) A sample chip analyzing device comprising:

a waveguide plate which entirely reflects and guides incident light, and which includes a number of sampling probes that are connectable to a sample to be analyzed;

a light source, provided in a light-shielding box having an opening into which an end portion of the waveguide plate is inserted in a light-shielded state, for irradiating fluorescent pumping light onto an end face of the end portion of the waveguide plate inserted into the light-shielding box; and

a pickup member for picking up an image of substantially an entire surface of the waveguide plate, and outputting picked-up data;

wherein the sample to be analyzed is labeled with fluorescent substances that are fluorescence-pumped by an evanescent wave which occurs when the fluorescent pumping light from the light source is irradiated onto the end face of the end portion of the waveguide plate and enters into an interior of the waveguide to be entirely reflected and guided; and

wherein the sample is analyzed by detecting respective ones of the sampling probes that are coupled to the fluorescence-

pumped flourescent substances of the labeled sample, based on the picked-up data outputted by the pickup member.

12. (New) The sample chip analyzing device according to claim 11, wherein the waveguide plate comprises a glass substrate.

13. (New) The sample chip analyzing device according to claim 11, wherein the waveguide plate comprises a pair of spaced apart insulation reflection plates arranged opposite to each other.